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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

<b>Application Number</b>	10/789,308
<b>Filing Date</b>	February 26, 2004
<b>First Named Inventor</b>	Thomas M. Jessell
<b>Art Unit</b>	1647
<b>Examiner Name</b>	Daniel C. Gamett
<b>Attorney Docket Number</b>	0575/79180-B/JPW/CSS

Sheet 2 of 7

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	13	Arnold et al., "Construction of a Plasmid Containing Human SMN, the SMA Determining Gene, Coupled to EGFP." Plasmid, 47(2): 79-87, 2002	
	14	Bjorklund et al., "Embryonic stem cells develop into functional dopaminergic neurons...in a Parkinson rat model." Proc Natl Acad Sci USA, 99: 2344-2349, 2002	
	15	Briscoe et al., "Homeobox gene Nkx2.2 and specification of neuronal identity by graded Sonic hedgehog signaling." Nature, 398: 622-627, 1999	
	16	Chung et al., "Deubiquitinating enzymes: their diversity and emerging roles." Biochem Biophys Res Commun., 266:633-640, 1999	
	17	Clontech, "New Living Colors™ GFP Mammalian Vectors", CLONTECHniques, July 1996	
	18	Corse et al., "Preclinical Testing of Neuroprotective Neurotrophic Factors in a Model of Chronic Motor Neuron Degeneration." Neurobiology of Disease, 58(7): 335-346, 1999	
	19	Derby et al., "GDNF is trophic for mouse motoneurons that express a mutant superoxide dismutase (SOD-1) gene." ALS and Other Motor Neuron Disorders, 1(2): 113-122, 2000	
	20	Fraichard et al., "In vitro differentiation of embryonic stem cells into glial cells and functional neurons." J. Cell Sci., 108: 3181-3188, 1995	
	21	Geisert et al., "The neuronal response to injury as visualized by immunostaining of class III-beta-tubulin in the rat." Neurosci Lett., 102: 137-141, 1989	
	22	Ghosh et al., "Distinct roles for bFGF and NT-3 in the regulation of cortical neurogenesis." Neuron, 15(1): 89-103, 1995	

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	23	Goueli et al., "A novel and simple method to assay the activity of individual protein kinase in crude tissue extracts." Anal Biochem, 225(10):10-17, 1995	
	24	Hsieh-Li et al., "A mouse model for spinal muscular atrophy." Nat Genet., 24: 66-70, 2000	
	25	Hynes et al., "Specification of dopaminergic and serotonergic neurons in the vertebrate CNS." Review. Curr. Opin. Neurobiol., 9: 26-36, 1999	
	26	Lee and Jessell, "The specification of dorsal cell fates in the vertebrate central nervous system." Annu. Rev. Neurosci. 22: 261-294, 1999	
	27	Jessell et al., "The decade of the developing brain." Curr. Opin. Neurobiol., 10: 599-611, 2001	
	28	Kawasaki et al., "Induction of midbrain dopaminergic neurons from ES cells by stromal cell-derived inducing activity." Neuron, 28: 31-40, 2000	
	29	Lee et al., BIOSIS Accession No. 2004:197764, Abstract from the Meeting of the Society for Neuroscience, November 8-12, 2003	
	30	Lee et al., BIOSIS Accession No. 200400198323, "Motoneuronal differentiation of human ES cells." Abstract from the Meeting of the Society for Neuroscience, November 8-12, 2003	
	31	Li et al., "Generation of purified neuronal precursors from embryonic stem cells by lineage selection." Curr Biol., 8:971-974, 1998	
	32	Marquardt et al., "Cracking the transcriptional code for cell specification in the neural tube." Cell, 106: 651-654, 2001	

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	34	Monani et al., "Animal models of spinal muscular atrophy." Review. Hum Mol Genet., 9(16): 2451-2457, 2000	
	35	Muhr et al., "Assignment of early caudal identity to neural plate cells by a signal from caudal paraxial mesoderm." Neuron, 19: 487-502, 1997	
	36	Mullen et al., "NeuN, a neuronal specific nuclear protein in vertebrates." Development, 116: 201-211, 1992	
	37	Nagai et al., "Rats expressing human cytosolic copperzinc superoxide dismutase transgenes...develop motor neuron disease." J. Neurosci., 21: 9246-9254, 2001	
	38	Nicholson et al., "Mice, the motor system, and human motor neuron pathology." Review. Mamm Genome, 11: 1041-1052, 2000	
	39	Pevny et al., "A role for SOX1 in neural determination." Development, 125: 1967-1978, 1998	
	40	Simeoni et al., "Motoneuronal cell death ...androgen receptors containing an elongated polyglutamine tract." Human Molecular Genetics, 9(1): 133-144, 2000	
	41	Sockanathan et al., "Motor neuron-derived retinoid signalling specifies the subtype identity of spinal motor neurons." Cell, 94: 503-514, 1998	
	42	Spinella-Jaegle et al., "Sonic hedgehog ...pluripotent mesenchymal cells... osteoblastic lineage...adipocytic differentiation." J Cell Sci., 114: 2085-2094, 2001	

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	43	Talbot et al., "Characterization of a gene encoding Survival Motor Neuron (SMN)-related protein...spliceosome complex." Human Molecular Genetics, 7(13): 2149-2156, 1998	
	44	Turgeon et al., "Prevention of Thrombin-Induced Motoneuron Degeneration with Different Neurotrophic Factors in Highly Enriched Cultures." J Neurobiol., 38(4): 571-580, 1999	
	45	Vallier et al., "An efficient system for conditional gene expression in embryonic stem cells ...differentiated derivatives." Proc Natl Acad Sci USA, 98: 2467-2472, 2001	
	46	Weinstein et al., "Neural induction." Annu Rev Cell Dev Biol., 15: 411-433. 1999	
	47	Westmoreland et al., "Neuronal development of embryonic stem cells: a model of GABAergic neuron differentiation." Biochem Biophys Res Commun., 284: 674-680, 2001	
	48	Zhu et al., "Sonic hedgehog and BMP2 exert opposing actions on proliferation and differentiation of embryonic neural progenitor cells." Dev Biol., 215(1): 118-129, 1999	
	49	The American Heritage Dictionary of the English Language. 4th Ed. (2000). Term: "Motoneuron"	
	50	Office Action issued by the United States Patent and Trademark Office on July 19, 2004 in connection with application No. 10/196,882	
	51	Office Action issued by the United States Patent and Trademark Office on October 1, 2004 in connection with Application No. 10/196,882	
	52	Office Action issued by the United States Patent and Trademark Office on May 3, 2005 in connection with Application No. 10/196,882	

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	54	Office Action issued by the United States Patent and Trademark Office on August 14, 2006 in connection with application No. 10/789,266	
	55	Final Office Action issued by the United States Patent and Trademark Office on October 27, 2006 in connection with Application No. 10/196,882	
	56	Office Action issued by the United States Patent and Trademark Office on April 30, 2007 in connection with Application No. 10/789,266	
	57	Office action issued by the United States Patent and Trademark Office on June 22, 2007 in connection with Application No. 10/196,882	
	58	Office Action issued by the United States Patent and Trademark Office on April 30, 2008 in connection with application No. 11/510,038	
	59	Office Action issued by the United States Patent and Trademark Office on May 9, 2008 in connection with application No. 11/510,366	
	60	Office Action issued by the United States Patent and Trademark Office on December 12, 2008 in connection with Application No. 11/510,038	
	61	Office Action issued by the United States Patent and Trademark Office on December 17, 2008 in connection with Application No. 11/510,366	
	62	PCT International Preliminary Examination Report issued April 4, 2005, in connection with PCT/US2003/20399, filed June 26, 2003	

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	64	Written Opinion of International Searching Authority issued June 14, 2007 in connection with PCT/US2005/05166, filed February 18, 2005	
	65	PCT International Search Report issued June 14, 2007 in connection with PCT/US2005/05166, filed February 18, 2005	
	66	PCT International Preliminary Report on Patentability issued July 10, 2007 in connection with PCT/US2005/05166, filed February 18, 2005	
	67	Written Opinion of International Searching Authority issued June 26, 2007 in connection with PCT/US2005/005877, filed February 22, 2005	
	68	PCT International Search Report issued June 26, 2007 in connection with PCT/US2005/005877, filed February 22, 2005	
	69	PCT International Preliminary Report on Patentability issued July 17, 2007 in connection with PCT/US2005/005877, filed February 22, 2005	

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